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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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EXAMINER

RAMAN, USHA

ART UNIT

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PAPER

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

<b>Office Action Summary</b>	<b>Application No.</b> 09/623,780	<b>Applicant(s)</b> FUKUZAWA ET AL.	
	<b>Examiner</b> USHA RAMAN	<b>Art Unit</b> 2424	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 14 July 2008.
- 2a) ☒ This action is **FINAL**.                      2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 7,9-12 and 14-16 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 7,9-12 and 14-16 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some \*    c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- |  |   |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892)                     | 4) <input type="checkbox"/> Interview Summary (PTO-413)           |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____                                      |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)          | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____  | 6) <input type="checkbox"/> Other: _____                          |

**DETAILED OFFICE ACTION**

***Response to Arguments***

1. Applicant's arguments filed July 14<sup>th</sup> 2008 have been fully considered but they are not persuasive.

Applicants arguments (see Remarks page 10) have been noted. However examiner respectfully disagrees. The DVB specification and Implementation Guidelines both disclose the step of selectively replacing portions of the NIT at network boundaries with information pertinent to for re-broadcasting to the new network. This includes replacement of the delivery descriptors as well as modifying the service identifiers and service list descriptors for the new network. Such selective replacement necessitates that data be held in buffer so that it can be parsed and selectively replaced. The ETR 211 Guideline further notes that while NIT for the actual transport streams is mandatory, NIT for other transport streams may also be transmitted (i.e. satellites belonging to different networks). Therefore in the event NIT for the other transport stream are transmitted from the old delivery system, it is additionally noted that similar parsing and replacement steps would be required for selectively replacing portions of NIT corresponding to the other transport stream for delivery of pertinent services in the new delivery system. Accordingly it would have been obvious to buffer the two NITs in different locations in the memory.

For the reasons stated above, the rejection is sustained.

***Claim Rejections - 35 USC § 103***

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2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

3. Claims 7, 9-12 and 14-16 are rejected under 35 U.S.C. 103(a) as being unpatentable over LaJoie (US PG Pub. 2005/0015804) in view of "DVB Document A038: Specification for service information (SI) in Digital Video Broadcasting (DVB) Systems" to DVB Project office in March 1998.

With regards to claims 7 and 12, LaJoie discloses a method of transmitting digital services received from one delivery network (satellite transmission), demodulating the received satellite signals, editing the signal to remove streams that are not going to be re-broadcast, modulating the signals according to the cable delivery network modulation scheme and transmitting over the cable network. See [0071].

While LaJoie teaches the step of not retransmitting certain services or "unwanted" programs, LaJoie is silent on the steps of replacing network information means prior to transmitting the data to a cable delivery network and deleting the service identifiers of network information that are not retransmitted and adding placeholder data for the deleted service identifiers, the service list descriptors for services repeated in the new transmission in the cable delivery network in accordance with the TS description length.

DVB specification (A038) as set forth by the DVB project office, further incorporating the contents (see page 4) of DVB guidelines for Implementation and usage of Service Information (ETR 211), set forth transition guidelines at delivery media boundaries. The guideline discloses replacement NIT packets and therefore shows the step of network information replacement with the information for the cable transmission path. See DVB Guidelines, ETR211: clauses 4.1.1 and 5.3.

Furthermore, the DVB specification discloses that the NIT comprises a `delivery_system_descriptor` for each of the delivery systems, namely a `cable_delivery_system_descriptor` and a `satellite_delivery_system_descriptor` for the cable and satellite systems respectively. See clauses 6.2.8 in DVB Specification, A038. The cable/satellite delivery system descriptors are transmitted in the second descriptor loop of the NIT (see ETR 211, 4.2.1.2.1). The NIT also specifies `transport_descriptors_length` field, wherein the field specifies the, 'total length in bytes of Transport Stream descriptors that follow' (see A038, pages 14-15).

Therefore, the delivery system descriptors are set in accordance with the transport stream descriptor length set forth in the `transport_descriptors_length` field.

Furthermore, it is also noted that the NIT is a table indicating physical information of a transmission path, wherein the NIT is contained in the broadcasting signal (see page 13, DVB specification), and distinguished by a unique PID (as specified by table 2 of DVB specification).

The DVB specification further discloses the step of transmitting `stuffing_descriptor` (i.e. placeholder data) for invalidating previously coded

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descriptors and therefore teaches the step of replacing service identifiers using placeholder (and therefore deleting service identifiers) when the services are no longer valid (i.e. services that are not re-transmitted). See DVB A038, clause 6.2.29. The stuffing\_byte is situated in a *for\_loop*, clearly indicating a *repetition* of the stuffing\_byte field N times, wherein “each occurrence of the [stuffing byte] maybe set to any value”. See A038, 6.2.29. Furthermore, the descriptor\_length field preceding the aforementioned *for\_loop* indicates “the total number of bytes of the data portion of the descriptor following” (see A038, page 27), further supporting examiner’s position that length of the stuffing descriptor can vary according to the size of the descriptors that need to be invalidated. Therefore the DVB documents teach the limitations of adding placeholder data having the same length of the deleted service identifiers.

The ETR 211 Guideline further discloses that transmitting a service list descriptor corresponding to a transport stream identifiers, wherein the service list descriptor contains a list of services transmitted (including repeated services) in a new delivery system (see DVB Guidelines, fig. 2, 4.2.1.2.2 and DVB specification, table 62), wherein the service list descriptor is transmitted in accordance with the length of a transport stream. The ETR 211 accordingly teaches that the service list descriptors to be re-transmitted are appended to the transport stream identifier in accordance with length of the transport stream descriptor.

It would have been obvious to one of ordinary skill in the art at the time of the invention to use the principles taught set forth by the DVB specification for transition

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between delivery system boundaries in the system of LaJoie so that the receiver at the new delivery information can correctly identify and decode services.

As noted above, the DVB specification and Implementation Guidelines both disclose the step of selectively replacing portions of the NIT at network boundaries with information pertinent to for re-broadcasting to the new network. This includes replacement of the delivery descriptors as well as modifying the service identifiers and service list descriptors for the new network. Such selective replacement necessitates that data be held in buffer so that it can be parsed and selectively replaced. The ETR 211 Guideline further notes that while NIT for the actual transport streams is mandatory, NIT for other transport streams may also be transmitted (i.e. satellites belonging to different networks). Therefore in the event NIT for the actual transport stream and NIT for the other transport stream are transmitted from the old delivery system, it is additionally noted that similar parsing and replacement steps would be required for selectively replacing portions of NIT corresponding to the other transport stream for delivery of pertinent services in the new delivery system. Examiner takes official notice that memory means of plurality of capacity for buffering such content were well known in the art at the time of the invention. As such it would have been further obvious to hold the NIT for the actual transport stream and the NIT for other transport stream in memory means in order to perform selective replacement of packets so that they contain pertinent delivery system information and service information for the new delivery system. It is also noted that the NIT for the actual transport stream would be buffered as a separate

table than the NIT for the other transport stream, and therefore be stored in different locations in the memory means.

In regards to claims 10 and 15, as discussed above for claims 7 and 12, the modified system comprises a cable television network as the first transmission path and a satellite broadcasting network as the second transmission path. See LaJoie [0071].

In regards to claims 9 and 14, LaJoie discloses that a satellite decoder demodulates the QPSK signals modulated from the second network transmission path and data packets. Note LaJoie [0071]. Upon receiving and decoding a transport stream, the NIT is extracted at the receiving site in order compare the network id of a transport stream to identify the delivery network. If it is found that the network id of the received transport stream does not match with the network id of the receiver, the network id must be replaced for subsequent delivery over a second network. The extracted packets are then packetized (converted) into a compliant system standard for subsequent delivery in the second network. Furthermore, the ETR discloses that the extracted network identification information is replaced with that of the new network. Note clause 5.3.2 in page 37 of the ETR.

In regards to claims 11 and 16, the ETR discloses that a can digital receive transport streams from an arbitrary network, extract the network information to determine the delivery network id and convert it to a format compliant with the network to be delivered to, replace the network id with the information of the network to be delivered to. In the case of the modified system, the arbitrary network is any satellite



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network and the network to be delivered to is the cable network. The ETR further discloses that a transport stream from an arbitrary network has to have a NIT (designated by the tables listed under DVB mandatory in figure 1) identifying the actual transport stream, however it may also have NIT concerning with another transport stream (designated by tables under DVB for optional transport streams) of another network (i.e. another satellite, cable or terrestrial network). Note clause 1 in page 7 and figure 1 of ETR in page 10. When two such networks are identified in the new network, the new network replaces the network information of both the networks with the network information of the new network in the same manner as above. Note the last paragraph in page 11 of the ETR.

### ***Conclusion***

4. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory

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period for reply expire later than SIX MONTHS from the mailing date of this final action.

5. Any inquiry concerning this communication or earlier communications from the examiner should be directed to USHA RAMAN whose telephone number is (571)272-7380. The examiner can normally be reached on Mon-Fri: 9am-6pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Christopher Kelley can be reached on (571) 272-7331. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Usha Raman/

/Chris Kelley/

Supervisory Patent Examiner, Art Unit 2424